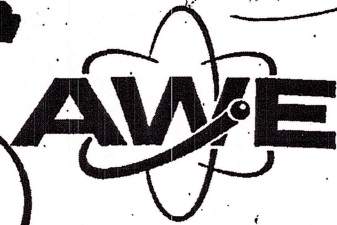
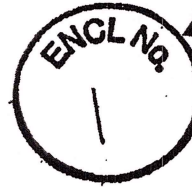


S24
S38
S38
S38

Reply to: [redacted]
Direct Dial: [redacted]
Direct Fax: [redacted]
e-mail: [redacted]



Aldermaston • Reading
Berkshire • RG7 4PR
Tel (0118) 981 4111 Fax (0118) 981 5320

S38 Our Ref: AWE/[redacted]
Your Ref: [redacted]

S38

[redacted]

S38 [redacted]
NW IPT

S38

[redacted]

3 December, 2002

S38 [redacted]
AWE Aldermaston
Reading
Berks RG7 4PR

S38 Dear [redacted]

FUTURE OF BURGHFIELD SITE

From our discussions earlier this year you will be aware that AWE had set an internal date to complete our assessment of the business case and strategic drivers associated with the Burghfield site closure option that had been anticipated within the contract. This assessment has now been completed and our recommended option is that the Burghfield site continues to be operated. Our assessment took into account programme risk and possible future requirements.

I enclose a summary paper of the issues surrounding the decision for your information. It is important that we agree a position on this recommendation at the earliest as it has implications for related projects and siting decisions. Therefore, I propose that we meet at your earliest convenience to discuss how the issue of continued operation of Burghfield is taken forward under the contract.

I will contact you directly to set up an appropriate meeting with all necessary attendees. I will also ensure that a suitable high level briefing is given at our planned 'one star' meeting on 6 December 2002.

Yours sincerely

S38

[redacted signature]

S38

[redacted]
DIRECTOR



INVESTOR IN PEOPLE

[redacted]

AWE is the trading name of AWE plc
Registered in England and Wales • Registration no. 02763902
Registered office: Aldermaston • Reading • RG7 4PR

AWE © Secretary of State for Defence

Recommendation for the AWE Burghfield Site

Executive Summary

1. From April 2000 with the change of contractor, AWE has operated with the expectation of moving all its operations to one site at Aldermaston. Closure of Cardiff is now complete and closure of the Burghfield site was to be the last major task. This transition to one large site offered the opportunity to reduce costs of assets, security, and nuclear operations and; with a foreseeable period of reduced outputs toward the end of the ten year contract, a window of opportunity to make this move appeared to be available. → a
2007-101
2. This plan to move from Burghfield was provisionally priced in the Contract with both AWEML and the Nuclear Weapons IPT acknowledging more work and analysis was needed. Additionally, it was made clear by the Ministry of Defence that Ministerial Approval would be required to close the Burghfield site. Through the Burghfield Programme, work has been undertaken on the planning and engineering options and on the many associated issues with both internal and external stakeholders, and several changes in the weapons programme since April 2000 have been taken into account.
3. Based on this work and on the recent positive interactions with Chief Scientific Adviser [CSA], it should now be AWE's strong recommendation to NWIPT that the Burghfield site remains open and retains the important mission element of assembly/disassembly. This recommendation, with MoD's concurrence, would be definitized and become part of the technical basis of the M&O contract. AWE would then formally modify its forward plans for the two sites, which are both vital for long-term viability of the United Kingdom's nuclear deterrent.

Aims of the Paper

4. The aims of this paper are to:
 - Discuss the options, arguments and risks which have a bearing on a decision about the future location of ADF [Assembly / Disassembly Facility]. It is this decision which predominantly drives the future of the Burghfield site.
 - Consider the issues and arguments and offer a recommendation on whether the Burghfield site should be closed.
 - Offer background material to be used in discussions with MoD aimed at reaching an early decision about the future of Burghfield.
5. The paper makes use of information and analysis gained from the Options Stage of the Burghfield Programme, factoring in known and potential strategic issues discussed in CSA's recent review.

Forward Mission and Anticipated Requirements

3. To meet its forward programme, AWE requires uninterrupted availability of an Assembly/Disassembly Facility for [REDACTED] covering multiple tasks:

S24

trident production
with AWE facilities
Damaged warhead

- Stockpile surveillance, involving an annual programme of breakdown and assessment of Trident units

S24

[Redacted]

- Stockpile withdrawals to balance future stockpile levels in line with the Government's SDR commitments and the customer's requirements

S24

[Redacted]

S24

[Redacted]

S24

[Redacted]

7. In addition there are potential long-range requirements which could be placed on AWE by the customer:-

S24

[Redacted]

- A Successor Readiness Programme, involving design, development and preparation for production of a successor to the Trident warhead.
- Research and Development support for MoD's non-nuclear programmes, such as those on energetic materials.

Options

8. Earlier this year the Burghfield Programme was established to study how processes currently undertaken at the Burghfield site could be transferred to Aldermaston. That Programme has followed the AWE Project Process and so far reached part way through the Options Stage.

S24

9. Both new-built and refurbished facilities have been considered for each of the Burghfield processes (Assembly/Disassembly, High Explosives Fabrication, Rubbers and Plastics, and [Redacted], but the essential decision on whether to transfer from Burghfield is based on the alternative being a new build Assembly/Disassembly capability at Aldermaston.

S24

10. [Redacted]

11. The basic options are therefore:-

- Continue to use Burghfield for Assembly/Disassembly. This would also require investment in the site infrastructure.
- Relocate all processes from Burghfield to Aldermaston, in which case Burghfield could be closed.

12. Because there is considerable flexibility in siting the other facilities, this paper concentrates on the drivers, risks and arguments for where ADF should be located. Order of magnitude costs for the two options are given at Annex.

[Redacted]

Drivers

13. This section analyses the drivers for these basic options across the set of issues important to making a choice between them.

Continuity

14. There are various requirements for continuity of processes even though the Company may wish to replace or move the facilities which provide them.

15. The Gravel Gerties [GGs] at Burghfield must remain operational continuously until replaced, in order to:-

- Support the stockpile surveillance activity
- Deliver our continuing assembly/disassembly objectives
- Provide a refurbishment capability
- Deal with a damaged service warhead

Timing

16. It was a planning assumption in the AWEML bid that the GGs would be replaced by a new facility no earlier than 2010 (and a provisional cost of [redacted] included to cover it).

17. A current planning assumption is that the existing ADF will be superseded by a new Facility [redacted]. Even though there are considerable uncertainties in this date, it is crucial to maintaining continuity of capability that the provision of new or refurbished facilities is matched in time to the overall programme requirements.

Assurance and Regulatory

18. There is no siting policy for military nuclear facilities, so the Nuclear Installations Inspectorate [NII] would judge any proposal we made on our ability to make a justifiable safety case.

19. In the case of a new ADF it will be difficult to consider a site close to large nuclear facilities such as [redacted] unless we could show all alternative sites were disproportionately expensive for an equivalent standard of worker and public safety achieved.

20. Any ADF safety case for a location at Aldermaston would have to consider possible [redacted]. Similarly, safety cases for facilities affected by ADF would have to be revised.

21. Risk arguments are likely to be strongly in favour of staying at Burghfield where the local population is much smaller and the public risk lower, there is no interaction with other nuclear facilities, and it's easier to maintain good separation from other RA facilities.

[REDACTED]

22. The current GGs will have to be covered in the Periodic Safety Review NII requires in 2005/06, [REDACTED]

S24

23. [REDACTED]

S24

24. Application of Quantity-Distance rules by Defence Ordnance Safety Group (MoD) is more rigid than previously, so the separation between an explosives building - which ADF is - and any buildings adjacent to it may have to be greater than now, [REDACTED]

S24

Space Utilisation

25. Several reasons have emerged from the Burghfield Programme on why it would be sensible to retain the Burghfield site on grounds of space and flexibility. Some of these were reflected in CSA's review:-

- There might not be sufficient room at Aldermaston to accommodate facilities for a successor programme as well as Trident.
- Moving from Burghfield may be a false economy
- It would be extremely difficult to replace the existing nuclear licensed site if another were required in the future
- It could have other advantages in future as it has both a licensed and unlicensed areas.

26. These opinions support the view that:-

- There is insufficient space at Aldermaston alone to accommodate the new operational facilities in the Company's Major Investment Schemes and those that would be required for any Successor Programme.
- If ADF remains at Burghfield, there is less competition for space at Aldermaston among the various requirements - research activities (which may require expansion room); explosives facilities, which necessarily need large buffer zones around them; future facilities for a successor system; [REDACTED] Certain new facilities, especially ones housing nuclear operations, would logically be at Aldermaston inside an expanded NSPA, but ADF need not be, and could therefore release a prime site at Aldermaston for other uses.
- If ADF and the High Explosives Facility were both brought to Aldermaston there would be little prospect of achieving the reduction in land area within the security fence at the Eastern side of the site envisaged in the Site Development Strategy Plan. Divergence from the concept of a science park would be the result.

Facility and Process Conflicts

27. Potential conflict or interference between processes has emerged in several instances, chiefly over siting. Those of greatest significance are:-

- ADF must be in an explosives area. [REDACTED]

S24

[REDACTED]

[REDACTED]

[REDACTED]

S24

Approvals and Acceptability

S24 28. Closing Burghfield might initially create favourable public reaction because it could release real estate for development, but it could generate concerns about the introduction of new activities and features at Aldermaston - weapon assembly/disassembly, [REDACTED] increased traffic, and new buildings with masts.

29. In essence, the public has accepted Burghfield for around 40 years and local residents there are generally accustomed to it. At Aldermaston the current facility is generally supported by the local community, which is much larger than that around Burghfield and among whom many now have no connection with AWE. In these circumstances the move of assembly/disassembly functions to Aldermaston would almost certainly produce some degree of opposition - perhaps among a minority, but potentially resulting in a public inquiry and possible debate within Government about the nuclear weapons programme.

30. Staying at Burghfield would not require justification to the Local Planning Authority and public. It may avoid the need for a public inquiry on the grounds that Assembly/Disassembly has been carried out there for decades and the site is in a relatively sparsely populated area. In addition, fewer opportunities would be given for the public to press for the release of detailed information, and there would be much less focus for denigration of AWE by the media and anti-nuclear sympathisers.

Costs and Savings

31. The conclusions of the 6-week Burghfield study reported last December were that:-

- Order of magnitude costs over the 10-year contract term to stay are lower than moving out
- Order of magnitude costs over a 25-year term for staying or moving are similar (but the cost for staying did not include any requirement to construct new facilities at Burghfield)
- Because a decision to stay or move out was not clear-cut, a study should be launched to investigate the options more closely. (This became the Burghfield Programme.)

S24 32. Currently the Options Stage within the Burghfield Programme has provided cost estimates for Rubbers and Plastics [REDACTED] and has recognised that before committing to a siting decision on these processes the future location for ADF must be decided.

[REDACTED]

[REDACTED]

33. So far only very preliminary estimates have been produced for the costs of various ADF options (at Annex), but undoubtedly the major cost of refurbishing or building new facilities lies with ADF wherever it is sited and is in the range of estimates from [REDACTED]

S43

34. The refurbishment option – available at Burghfield only - is at the bottom end of this range, but if the site were retained there would have to be investment of [REDACTED] to revitalise the site infrastructure (utilities, [REDACTED] and accommodation).

S43

S24

35. Burghfield closure, on the other hand, would give a saving to MoD @ [REDACTED] on MDP funding. Eventual sale of the site - would provide a "planning gain" to the local authority and the community, and realise [REDACTED] to the Treasury, but this would not occur before 2015 at earliest. Set against that would be a cost to decommission and restore the site - an activity not covered or costed in the ten year term of the M&O Contract. Any significant financial return to MOD would thus be deferred for some decades.

S43

S43

Practicability

36. Locating ADF at Burghfield has a benefit in isolating the assembly/disassembly functions [REDACTED]

S24

Contractual

37. The BAFO contained a provisional cost for a new ADF at Aldermaston. If the recommendation to retain Burghfield is accepted any new proposal agreed between AWEML and MoD would presumably supplant this.

Risks and Uncertainties

38. Risks and uncertainties are associated both with a transfer of ADF to Aldermaston and its retention at Burghfield. The other risks introduced by High Explosives Facility, Rubbers and Plastics, [REDACTED], are not discussed here but the Burghfield Programme assessment shows they do not offer any which over-ride those for ADF.

S24

Risks in Moving ADF to Aldermaston

39. The principal risks with this strategy fall into two broad categories. Firstly there are various impediments which could deter or delay building a new facility and bringing it to operation. These include:-

S24

- [REDACTED]
- Delays because of the local authority planning process, and the strong likelihood of there being a public inquiry. This risk too is deemed high.
- Technical uncertainties inherent in a new design. This risk can be mitigated by proper design and trials of new features: it is deemed medium.

[REDACTED]

40. Secondly, there are the risks inherent in focusing all AWE's operations on a single site, which will reduce flexibility, make it difficult to locate facilities in a compatible manner, and place constraints on the introduction of additional facilities, such as for a Successor Programme. These were issues which also concerned CSA in his recent review.

Risks in Retaining ADF at Burghfield

41. The principal risks with this strategy are:-

S24

S24

[REDACTED]

42. There do not seem to be any contractual risks associated with retaining Burghfield, as MoD recently confirmed that the decision was always subject to economic and programme considerations - and Ministerial Approval too if the site were to be closed.

Review of Options

43. A decision to retain Burghfield is driven largely by the decision on ADF. Both Aldermaston and Burghfield options for ADF can meet programme requirements, but the basic choices of site carry risks of different character.

44. The risk of delay may seem greatest for a refurbishment option at Burghfield, as the degree of disruption to normal working is difficult to predict. However, it is the most likely to avoid difficulty and delay due to the local authority's planning process. In particular, it has the best chance of not attracting a public inquiry.

S24 45. By contrast, a move to Aldermaston with a new build project carries collectively the highest set of risks. Location, design and [REDACTED] could be technically difficult and more protracted to achieve, and the likelihood of there being a public inquiry high.

46.

S24

[REDACTED]

47. The last of the major risks in moving out of Burghfield is the loss of the site for future use. If all future development has to be at Aldermaston there will be pressure on space and difficulty in reconciling varied and competing uses.

48. Giving up Burghfield would also mean the loss of a valuable strategic amenity. The Burghfield site can house processes in addition to Assembly/Disassembly, and these need not be explosives processes. Perhaps the most important potential use would be if a requirement for a Successor system emerged, as then there would be some additional real estate capable of siting new facilities, and a much better prospect of optimising the overall groupings

S24

[REDACTED]. The strategic value of Burghfield was clearly the driving concern behind some of CSA's observations and recommendations.

49. The M&O Contract does not preclude retaining Burghfield. Certainly such a proposal will require justification to MoD but, given their agreement to the basic principle, an alternative, costed proposal would be put forward and negotiated under existing change arrangements.

S43

Recommendations

50. Based on the analysis of options to date by the Burghfield Programme, and taking into account all the currently foreseeable factors, it should now be AWE's strong recommendation to the NWIPT that Assembly/Disassembly remains at Burghfield and the site continues as a key asset to the UK nuclear weapons programme.

51. This view reflects the thrust of the major risks of:-

- Programme continuity and delivery being jeopardised
- The local authority planning process, which may include a public inquiry, creating public antagonism and delay
- A strategic asset being lost, reducing future flexibility
- AWE's ability to mount a successor programme, if required, being compromised.

Annex

Option Costs

	Assembly/Disassembly Options	Cost in period to 2025					
S43	Move to Aldermaston						
S43	Stay at Burghfield						

Note

Selection of a Burghfield option will also require investment in the site infrastructure of around [REDACTED] S43